

**REMARKS**

Claims 1-5 are all the claims pending in the application.

**I. Specification Objection**

The Examiner has objected to the specification as containing a spelling error specifically listed in paragraph 4 of the Office Action dated February 25, 2002. Applicant has corrected the spelling error and accordingly requests the Examiner to reconsider and withdraw the objection to the specification.

**II. Double Patenting Rejections**

Claim 1 stands provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claim 1 of co-pending U.S. Application No. 09/764,307. Additionally, claim 1 stands provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claim 1 of co-pending U.S. Application No. 09/764,139. Applicant has cancelled claim 1 in both co-pending applications, and therefore, only claim 1 of the present application claims the particular subject matter. Accordingly, Applicant respectfully requests that the provisional rejections of claim 1 be reconsidered and withdrawn.

Claims 2-5 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-5 of co-pending U.S. Application No. 09/764,307. Additionally, claims 2-5 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-5 of co-pending U.S. Application No. 09/764,139. Further, claims 1-5 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-5 of co-pending U.S. Application No. 09/511,898, and finally, claims 1-5 stand provisionally rejected under the judicially created

doctrine of obviousness-type double patenting over claims 1-5 of co-pending U.S. Application No. 09/129,883. Applicant submits herewith a terminal disclaimer which disclaims the terminal part of these co-pending applications. As a result, Applicant respectfully requests that the rejection of claims 1-5 be reconsidered and withdrawn.

### **III. Claim Rejections under 35 U.S.C. § 103**

Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagishi et al (U.S. Patent No. 5,695,413) in view of Yamagishi et al (U.S. Patent No. 5,779,563) and Official Notice taken by the Examiner. Applicant traverses the rejections for at least the reasons discussed below.

To establish a *prima facie* case of obviousness the Examiner must show that the prior art references, when combined, teach or suggest all of the claim limitations. See MPEP § 2143. Applicant respectfully submits that the references cited above by the Examiner fail to teach or suggest all of the claim limitations as set forth in the present application. Specifically, the references cited by the Examiner fail to teach or disclose a relationship between the  $V_R$  and the product of the Shore D hardness of the inner and outer layer, and the distortion of the core.

As acknowledged by the Examiner in the pending office action, Yamagishi '413 fails to teach or disclose dimples. Accordingly, Yamagishi cannot possibly teach the relationship between the  $V_R$  and the product of the Shore D hardness of the inner and outer layer.

Yamagishi '563 discloses a plurality of dimples as shown in Figure 3 and summarized in the table below.

	Layers of balls	Core hardness (100 kg)	Inner cover		Outer cover		Product * of hardness	Dimple Types	Dimple Types	V <sub>R</sub> **
			type	Shore D	Type	Shore D				
Ex 1	3P	2.2	a	40	A	45	1800	I	3 types	1.014
Ex 2	3P	2.2	a	40	A	45	1800	II	3 types	0.996
Ex 3	3P	2.6	a	40	B	53	2120	I	3 types	1.014
Ex 4	3P	3.3	b	65	B	53	3445	II	3 types	0.996
CE 1	2P	2.5	--	--	C	55	--	I	3 types	1.014
CE 2	3P	2.2	a	40	A	45	1800	III	2 types	0.67
CE 3	3P	4	a	40	D	65	2600	I	3 types	1.014

\*Product of hardness signifies the product of Shore D hardness of the inner and outer layers. \*\*Calculated V<sub>R</sub> value based on the data of Table 3 of the cited reference.

As be seen in the above Table, Examples 1, 2 and 3 satisfy the relationships between the specific product of Shore D hardness of the inner and outer cover layers and V<sub>R</sub> value. However, Example 4 and the Comparative Examples do not satisfy the claimed relationship. Nevertheless, the distortion under load of 100 kg of each solid core of the Examples 1, 2 and 3 is lower than 2.8 to 6.0 mm as recited in the claims, as seen from the above Table.

Moreover, the Examiner relies on Yamagishi '413 to teach the distortion of the core. As acknowledged by the Examiner, Yamagishi '413 teaches a core having a distortion of at least 3.5 mm under an applied load of 100 kg. Based on the Table above, only Comparative Example 3 meets this limitation. Accordingly, one skilled in the art would be likely to choose Type I dimples instead of Type II as the Examiner has suggested because the only teaching in Yamagishi '563 which shows a dimple choice for such a distortion is Comparative Example 3 which uses Type I dimples.

Additionally, the Examiner bears the burden of establishing that there is some suggestion or motivation, in either the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. This burden can only be satisfied by an objective teaching in the prior art or by cogent reasoning that the knowledge is available to one of ordinary skill in the art. See *In re Lulu*, (747 F.2d 703, 223 U.S.P.Q. 1257 (Fed. Cir. 1984)). Here, the Examiner makes a bald, unsupported conclusion that it would have been obvious to combine the Yamagishi references “in order to utilize a dimple pattern available in the market place to improve flying distance, controllability, straight travel and roll.” The Examiner has not relied on or identified any teachings within the references themselves which would suggest the combination of these two references. In fact, the references appear to discourage such a combination. As explained above, the only examples in Yamagishi ‘563 shown to provide the flight characteristics desired by the Examiner explicitly indicate a core distortion that is less than that required by Yamagishi ‘413. The Examiner has not indicated any other motivation to combine except for a broad conclusory statement. Broad conclusory statements regarding the teaching of references, alone, are not evidence, and do not alone provide motivation to modify or combine two references. See *Ecolchem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1372 (Fed. Cir. 2000) (Emphasis added). Accordingly, Applicant submits that the Examiner has failed to provide the required motivation or suggestion to combine the references.

In addition, the total number of the dimples for Types I, II and III is just 360, which is lower than the claimed number of 370 to 450. In an attempt to cure this deficient teaching, the Examiner takes OFFICIAL NOTICE that one skilled in the art would have been motivated to

have any number of dimples such as 370 to 450, for the purpose of routine optimization for obtaining the desired flight performance. However, an Examiner may not rely on official notice, or judicial notice, or a mere statement of obviousness at an exact point where patentable novelty is argued, but must come forward with pertinent prior art. See *Ex parte Cady*, 148 U.S.P.Q. 162 (Bd. of App. 1965). Here one of the points of novelty is providing the number of dimples being 370 to 450. The Examiner has not cited, nor has the Applicant identified, any prior art which suggests or teaches this aspects of the present invention.

Moreover, the number of the dimples is merely one of the various factors for determining flight performance. It is not always true that when the number of the dimples is larger, the level of the flight performance is higher. The flight performance is related to not only number of the dimples but also other factors such as the hardness of the both of inner and outer cover layers and the total dimple volume. If the number of the dimple is altered to 370-450, the dimple volume ratio of  $V_R$  value varies, which would influence the flight performance. When the number of the dimples of Yamagishi '563 is altered to 370-450, the altered ball may be inferior to the ball before altering dimple number. At the very least, the Examiner cannot rely on the values of  $V_R$  because, as stated above, these values would alter if the Examiner adjusted the number of dimples of Yamagishi '563 to 370-450.

In view of the above remarks, Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness. As a result, Applicant respectfully requests that the rejections of claims 1-5 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

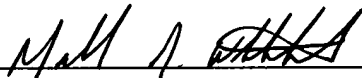
AMENDMENT UNDER 37 C.F.R. § 1.111  
Appln. No.: 09/764,316

Attorney Docket No.: Q61126

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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AMENDMENT UNDER 37 C.F.R. § 1.111  
Appln. No.: 09/764,316

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**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

**Page 1, paragraph 1:**

**CROSS REFERENCE TO RELATED APPLICATION**

This application is an application files under 35 U.S.C. § 111(a) claiming benefit pursuant to 35 U.S.C. § 10 119(e)(i) of the filing date of the ~~Provisineial~~Provisional Application 60/058,563 filed on September 11, 1997 pursuant to 35 U.S.C. § 111(b).